

Moez M. Kaba (Pro hac vice pending)
Christina V. Rayburn (Pro hac vice pending)
Sara Haji (Pro hac vice pending)
HUESTON HENNIGAN LLP
523 West 6th Street, Suite 400
Los Angeles, California 90014
Telephone: 213-788-4340
Facsimile: 888-775-0898
mkaba@hueston.com
crayburn@hueston.com
shaji@hueston.com

Ryan J. McBrayer, WSBA No. 28338
PERKINS COIE LLP
1201 Third Avenue, Suite 4900
Seattle, Washington 98101-3099
Telephone: 206.359.8000
Facsimile: 206.359.9000
RMcBrayer@perkinscoie.com

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

AMAZON.COM, INC. and AMAZON.COM
SERVICES LLC,

Plaintiffs,

v.

LIGHTGUIDE, INC.,

Defendant.

No. CaseNumber

COMPLAINT FOR DECLARATORY
RELIEF

DEMAND FOR JURY TRIAL

Plaintiffs Amazon.com, Inc. and Amazon.com Services LLC (collectively, “Amazon”) bring this suit against LightGuide, Inc. (“LightGuide”), and allege as follows:

INTRODUCTION

1. For over a decade, Amazon has been a leader in robotics innovation, building and implementing cutting-edge technology through sustained investment. As early as 2010, many of Amazon’s worldwide fulfillment centers leveraged automation to process products safely and efficiently. Amazon has only deepened its commitment to technological innovation since then,

1 creating project teams that develop solutions across machine learning, automation, and robotics—
2 many with the goal of improving Amazon’s warehouse operations.

3 2. Shelving and retrieving products—“stowing” and “picking,” respectively—are
4 among the many tasks Amazon has improved with advances in machine learning and robotics.
5 Typically, “stow” refers to how associates place products into inventory from various vendors and
6 small- and medium-business sellers throughout the country and across the world. “Pick,” in turn,
7 refers to how Amazon associates remove those products from inventory to pack, ship, and deliver
8 them quickly to customers who have ordered them. Stowing and picking occur at dedicated
9 associate stations, with Amazon’s robotic drive units delivering to Amazon’s associates the storage
10 pods onto which they shelve products and from which they retrieve those products.

11 3. In 2015, Amazon’s robotics team developed several hardware, software, and
12 process improvements to Amazon’s pick and stow stations; together, they were called “the Nike
13 System,” in a reference to the Greek goddess. The Nike System allows associates to work more
14 safely and efficiently by eliminating cumbersome hand-held scanners and replacing them with
15 digitized overhead scanning. An incremental aspect of the Nike System—a single feature among
16 many improvements, but the one at issue here—is its use of lights. For “stow” stations only, the
17 Nike System shines magenta lights to show an associate where not to stow an item on the storage
18 pod. For “pick” stations only, the Nike System shines white light at the bin on the storage pod
19 where the item is located.

20 4. In 2016, after Amazon had already begun using the Nike System in a Wisconsin
21 fulfillment center, other Amazon employees who did not work with the Nike System (or even on
22 the same team) began speaking with LightGuide about potentially using LightGuide’s technology
23 for certain targeted applications in other parts of Amazon. As LightGuide describes it, its
24 technology is directed to an “augmented reality” system that uses “digital projection technology
25 to overlay a virtual operating ‘canvas’ onto any work surface, interfacing with existing
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1 manufacturing equipment to deliver immersive, interactive visual work instructions that simplify
2 complex manual tasks[.]”

3 5. The few Amazon individuals to interact with LightGuide ultimately did not find
4 LightGuide’s solutions innovative or cost-effective, and Amazon did not put any LightGuide
5 system to production use.

6 6. After repeatedly pushing and failing to secure a deal, LightGuide sent Amazon a
7 letter in October 2021, pointing to public information about Amazon’s Nike System and accusing
8 Amazon of “reverse engineer[ing]” and making “unauthorized disclosures” of LightGuide’s
9 technology. Amazon promptly responded by showing LightGuide a video of Amazon’s working
10 Nike System, dated June 2016—well before any Amazon employee had had any contact with
11 LightGuide.

12 7. LightGuide then went silent for many months, resurfacing in November 2022 to
13 sue Amazon without warning for patent infringement in federal court in the Eastern District of
14 Texas. LightGuide’s complaint asserts three patents, and accuses of infringement “at least
15 Amazon’s pick and stow operations in at least its Fulfillment Centers through its Nike Intent
16 Detection System (Nike IDS), with ‘guided stow/pick activities’” LightGuide’s complaint
17 further claims that Amazon “secretly copied” LightGuide’s technology for the Nike System, even
18 though LightGuide knows—because Amazon made LightGuide aware—that Amazon had
19 implemented the Nike System as early as mid-2016.

20 8. LightGuide’s patent infringement allegations against Amazon are as baseless as its
21 prior allegations that Amazon developed the Nike System by copying LightGuide. Amazon’s
22 independently developed Nike System does not infringe LightGuide’s asserted patents.

23 9. Venue for LightGuide’s infringement allegations is not proper in the Eastern
24 District of Texas: neither LightGuide nor Amazon resides there, none of the relevant discussions
25 or testing took place there, and Amazon does not use the Nike System in the accused fulfillment
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1 center within that district. If LightGuide does not voluntarily dismiss its complaint in the Eastern
2 District, Amazon will shortly bring a motion to dismiss LightGuide’s lawsuit for improper venue.

3 10. Amazon seeks a full and final resolution of LightGuide’s patent infringement
4 allegations against it, and therefore brings this action for declaratory judgment of non-infringement
5 in the Western District of Washington: where Amazon is headquartered and practices the accused
6 technology, where LightGuide pitched its product to Amazon employees, where it visited
7 Amazon’s facilities, and where the parties executed two agreements that included forum-selection
8 clauses directed to the courts of King County, Washington.

9 **NATURE OF THE ACTION**

10 11. Amazon seeks a declaration that the development, manufacturing, use, sale,
11 promotion, and related activities of its Nike System do not infringe U.S. Patent Nos. 7,515,981
12 (“the ’981 Patent”), 9,658,614 (“the ’614 Patent”), and 10,528,036 (“the ’036 Patent”)
13 (collectively, the “patents-in-suit”).

14 **THE PARTIES**

15 12. Plaintiff Amazon.com, Inc. is a corporation organized under the laws of Delaware
16 with a principal place of business at 410 Terry Avenue North, Seattle, Washington 98109.

17 13. Plaintiff Amazon.com Services LLC is a corporation organized under the laws of
18 Delaware with a principal place of business at 410 Terry Avenue North, Seattle, Washington
19 98109.

20 14. Defendant LightGuide (formerly OPS Solutions, LLC) is a corporation organized
21 under the laws of Delaware with a principal place of business at 48443 Alpha Drive, Suite 175,
22 Wixom, Michigan 48393.

23 15. LightGuide purports to be the owner of all rights, title, and interest in and to the
24 ’981 Patent, the ’614 Patent, and the ’036 Patent.

JURISDICTION AND VENUE

16. This Complaint arises under the Patent Laws of the United States, 35 U.S.C. § 100 et seq., and the Declaratory Judgment Act, 28 U.S.C. §§ 2201 and 2202, based upon an actual controversy between the parties with respect to the patents-in-suit.

17. The Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

18. The Court has personal jurisdiction over LightGuide because LightGuide has specific contacts with the State of Washington and this District that are sufficiently related to this action such that the exercise of jurisdiction over LightGuide would not offend the traditional notions of fair play and substantial justice.

19. Venue properly lies in this district pursuant to 28 U.S.C. §§ 1391(b)-(c) because a substantial part of the events giving rise to the parties' dispute occurred within this judicial district.

20. Among its many contacts with Amazon within the District and relating to the patents-in-suit:

- LightGuide visited the District to discuss applications of its product offerings;
- LightGuide negotiated and executed agreements with Amazon containing forum-selection clauses in the state and federal courts of King County, Washington;
- LightGuide sent its projector product, which LightGuide claims embodies its patented technology, to an Amazon facility in Sumner, Washington;
- LightGuide repeatedly directed its sales efforts—including calls, meetings, and emails—to Amazon employees in the District; and
- LightGuide directed enforcement activities at Amazon within the District.

FACTUAL BACKGROUND

2015: Amazon Robotics Develops the Nike System

21. Since its founding in Seattle in 1994, Amazon has been a pioneer in online commerce and order fulfillment. Every day, millions of people visit Amazon.com to purchase

1 products. Many of those customers rely on Amazon to fulfill their orders, often with quick turn-
 2 arounds of one or two days.

3 22. During the holidays, any one of Amazon's North American fulfillment centers
 4 processes half a million orders per day—hundreds of orders per minute. This volume is made
 5 possible because associates work with cutting-edge automation, machine learning, and robotics
 6 technologies.

7 23. Through its use of advanced software and automation, Amazon has minimized the
 8 need for Amazon's associates to walk to storage bins to gather or place items. Instead, many
 9 Amazon fulfillment centers have thousands of robot drive units spread throughout each floor.
 10 These drive units collect mobile shelves of product—called “pods”—and deliver them to
 11 associates, as shown below:



22 24. Amazon's robotic drive units deliver pods on an as-needed basis to associates who
 23 are stowing or picking products. Below, an exemplary picture of an associate stow station shows
 24 three yellow pods facing the associate. At this stow station, the Amazon associate will retrieve an
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1 item from the shelf to the right, scan it beneath a mounted scanner, and then stow that item in a
2 bin on the pod.



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14 25. In 2015, Amazon's robotics team developed the Nike System to improve Amazon's
15 pick and stow stations in multiple ways. One of the more important improvements was the
16 elimination of the hand scanner. At traditional stations, associates need to hold a hand scanner to
17 scan each item. The Nike System added a mounted scanner, thus freeing the associates' hands and
18 improving safety and efficiency. The Nike System also added multiple cameras to the stow
19 stations, along with a robust machine-learning algorithm, to allow the system to automatically
20 determine which bin on a pod had received an item.

21 26. Lights are a minor element of the Nike System. At stow stations, the Nike System
22 shines magenta lights on certain bins to let the associate know not to place an item in those bins,
23 because they are not ideal for the specific product the associate has selected. The associate can
24 then place the item in any of the other bins. For pick stations only, the Nike System shines white
25 light at the bin where the item-to-be-picked is located.
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27. Below, an image depicts the magenta lights used during stow. Here, the magenta light is shining on several bins, and the Amazon associate is stowing an item away from those bins.



2016-2019: Amazon Teams Evaluate and Reject LightGuide

28. By June 2016, Amazon's robotics team had installed its first Nike System—including the white and magenta lights—at a fulfillment center in Kenosha, Wisconsin.

29. It was not until months later that other Amazon employees met LightGuide and began considering LightGuide's system for specific applications. Those applications had nothing to do with the pick and stow activities for which Amazon had developed (and was already using) the Nike System.

30. Between 2016 and 2018, LightGuide pitched its product to Amazon employees in this District, as well as in Sunnyvale, California. As part of those pitches, LightGuide interacted with and visited members of Amazon's Advanced Technology team in the Seattle area.

31. In 2018, LightGuide also sent a Light Guide projector to Amazon's Sumner, Washington facility. In its complaint in the Eastern District of Texas, LightGuide alleges that the product was marked with the numbers of two of the patents-in-suit.

1 32. None of the employees who interacted with LightGuide overlapped with the
2 Amazon robotics team that had created the Nike System.

3 33. As part of LightGuide's pitch process, Amazon and LightGuide executed two
4 agreements containing forum-selection clauses directed to the state and federal courts of King
5 County, Washington. Both agreements were signed by LightGuide CEO Paul Ryznar and by
6 Amazon employees listing office addresses in Seattle.

7 34. Between 2019 and 2021, LightGuide's CEO again directed sales efforts and
8 reached out to the director of Amazon's Advanced Technology group in Seattle. In its letter to
9 Amazon and its subsequent complaint, LightGuide claims that it presented applications of its
10 patented system to Amazon in Seattle in June 2019.

11 35. Ultimately, the few Amazon employees evaluating LightGuide determined that
12 LightGuide's product was not useful or cost-effective for the applications Amazon was
13 considering. None of those applications related to the Nike System or to pick and stow functions.

14 **The Present Controversy**

15 36. On October 11, 2021, LightGuide sent a letter to Amazon in Seattle, accusing it of
16 disclosing LightGuide's technology in violation of Amazon's confidentiality obligations and
17 copying LightGuide's technology for pick and stow operations. The letter was addressed to an
18 address in this District. It claimed, in particular, that LightGuide's "patented Light Guide
19 technology includes directional lights that illuminate a bin to direct an employee to place or remove
20 items from the bins, containers, etc." It also described LightGuide's efforts to pitch to Amazon
21 employees the system purportedly embodying LightGuide's patents, referencing "dozens of
22 emails, phone calls, and additional meetings" between LightGuide and Amazon's Seattle
23 employees. Finally, it accused Amazon of deploying "Light Guide technology" at Amazon's
24 fulfillment centers based on an Industry Week webinar performed by a Seattle-based Amazon
25 employee in March 2021.
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37. On January 24, 2022, Amazon sent LightGuide’s counsel a video demonstrating that Amazon had developed the Nike System—including its use of lighting—independently and before anyone at Amazon had discussions with LightGuide.

38. On November 7, 2022, LightGuide nevertheless filed suit against Amazon in the United States District Court for the Eastern District of Texas, alleging that Amazon was infringing the patents-in-suit through the Nike System’s use of lights in pick and stow operations at Amazon’s FTW3/FTW4 fulfillment center. LightGuide’s complaint specifically asserts Claim 12 of the ’981 Patent, Claim 11 of the ’614 Patent, and Claim 7 of the ’036 Patent.

39. LightGuide’s complaint is currently pending before the Honorable Robert W. Schroeder, III as LightGuide, Inc. v. Amazon.Com, Inc., et al, Case No. 2:22-cv-00433-RWS-RSP (E.D. Tex. 2022).

40. Amazon does not use the Nike System at the accused fulfillment center in the Eastern District of Texas, rendering venue improper there under 28 U.S.C. § 1400(b). Accordingly, Amazon will shortly move to dismiss LightGuide’s complaint in the Eastern District of Texas unless LightGuide agrees to voluntarily dismiss its complaint.

41. Even so, an actual and justiciable controversy exists between Amazon and LightGuide regarding Amazon’s non-infringement of the patents-in-suit. LightGuide maintains that Amazon infringes the patents-in-suit through its use of lights during pick and stow activities at its fulfillment centers, and Amazon maintains that it does not. LightGuide has already shown its willingness to file suit to enforce its claims.

Amazon Does Not Infringe the Patents-in-Suit

42. The ’981 Patent, entitled “Light Guided Assembly System,” states on its face that it issued on April 7, 2009. A true and correct copy of the ’981 Patent is attached as **Exhibit A**.

43. The ’614 Patent, entitled “Light Guided Assembly System and Method,” states on its face that it issued on May 23, 2017. A true and correct copy of the ’614 Patent is attached as **Exhibit B**.

1 44. The '036 Patent, entitled "Light Guided Assembly System and Method," states on
 2 its face that it issued on January 7, 2020. A true and correct copy of the '036 Patent is attached as
 3 **Exhibit C.**

4 45. The Nike System does not infringe the patents-in-suit. Accordingly, Amazon seeks
 5 a judicial declaration that it does not directly or indirectly infringe any claim of the patents-in-suit,
 6 literally or under the doctrine of equivalents.

7 **FIRST CAUSE OF ACTION**

8 **Declaratory Judgment of Non-Infringement of the '981 Patent**

9 46. Amazon hereby incorporates by reference its allegations contained in paragraphs 1
 10 through 45 of this Complaint as if fully set forth herein.

11 47. Amazon does not directly, contributorily, or by inducement, infringe any claims of
 12 the '981 Patent, either literally or under the doctrine of equivalents.

13 48. The manufacture, importation, use, sale, or offer for sale of the Nike System does
 14 not directly infringe, contributorily infringe, or induce infringement of any claims of the '981
 15 Patent, either literally or under the doctrine of equivalents.

16 49. As set forth above, an actual controversy exists between Amazon and LightGuide
 17 concerning Amazon's non-infringement of the '981 Patent. Absent a declaration of non-
 18 infringement, LightGuide will continue to wrongfully assert the '981 Patent against Amazon, in
 19 violation of the laws and contrary to public policy, and will thereby cause Amazon injury and
 20 damage. A judicial determination is necessary and appropriate at this time so that the parties may
 21 ascertain their respective rights and obligations with respect to the '981 Patent and any past,
 22 present, or future manufacture, use, importation, distribution, sale, or offer for sale of the Nike
 23 System.

24 50. Accordingly, Amazon seeks and is entitled to a judgment against LightGuide that
 25 the Nike System, as well as any other Amazon systems that are not colorably different from the
 26

1 Nike System, has not infringed and does not infringe (directly, indirectly, contributorily, or by
2 inducement) any claim of the '981 Patent.

3 **SECOND CAUSE OF ACTION**

4 **Declaratory Judgment of Non-Infringement of the '614 Patent**

5 51. Amazon hereby incorporates by reference its allegations contained in paragraphs 1
6 through 50 of this Complaint as if fully set forth herein.

7 52. Amazon does not directly, contributorily, or by inducement, infringe any claims of
8 the '614 Patent, either literally or under the doctrine of equivalents.

9 53. The manufacture, importation, use, sale, or offer for sale of the Nike System does
10 not directly infringe, contributorily infringe, or induce infringement of any claims of the '981
11 Patent, either literally or under the doctrine of equivalents.

12 54. As set forth above, an actual controversy exists between Amazon and LightGuide
13 concerning Amazon's non-infringement of the '614 Patent. Absent a declaration of non-
14 infringement, LightGuide will continue to wrongfully assert the '614 Patent against Amazon, in
15 violation of the laws and contrary to public policy, and will thereby cause Amazon injury and
16 damage. A judicial determination is necessary and appropriate at this time so that the parties may
17 ascertain their respective rights and obligations with respect to the '614 Patent and any past,
18 present, or future manufacture, use, importation, distribution, sale, or offer for sale of the Nike
19 System.

20 55. Accordingly, Amazon seeks and is entitled to a judgment against LightGuide that
21 the Nike System, as well as any other Amazon systems that are not colorably different from the
22 Nike System, has not infringed and does not infringe (directly, indirectly, contributorily, or by
23 inducement) any claim of the '614 Patent.

THIRD CAUSE OF ACTION

Declaratory Judgment of Non-Infringement of the '036 Patent

56. Amazon hereby incorporates by reference its allegations contained in paragraphs 1 through 55 of this Complaint as if fully set forth herein.

57. Amazon does not directly, contributorily, or by inducement, infringe any claims of the '036 Patent, either literally or under the doctrine of equivalents.

58. The manufacture, importation, use, sale, or offer for sale of the Nike System does not directly infringe, contributorily infringe, or induce infringement of any claims of the '036 Patent, either literally or under the doctrine of equivalents.

59. As set forth above, an actual controversy exists between Amazon and LightGuide concerning Amazon's non-infringement of the '036 Patent. Absent a declaration of non-infringement, LightGuide will continue to wrongfully assert the '036 Patent against Amazon, in violation of the laws and contrary to public policy, and will thereby cause Amazon injury and damage. A judicial determination is necessary and appropriate at this time so that the parties may ascertain their respective rights and obligations with respect to the '036 Patent and any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of the Nike System.

60. Accordingly, Amazon seeks and is entitled to a judgment against LightGuide that the Nike System, as well as any other Amazon systems that are not colorably different from the Nike System, has not infringed and does not infringe (directly, indirectly, contributorily, or by inducement) any claim of the '036 Patent.

PRAYER FOR RELIEF

WHEREFORE, Amazon requests the following relief:

1. A judgment and declaration that Amazon has not infringed and does not infringe, either directly or indirectly, any claim of the '981 Patent;

2. A judgment and declaration that Amazon has not infringed and does not infringe, either directly or indirectly, any claim of the '614 Patent;

3. A judgment and declaration that Amazon has not infringed and does not infringe, either directly or indirectly, any claim of the '036 Patent;

4. A judgment and declaration that this action is an exceptional case and awarding Amazon reasonable attorneys' fees pursuant to 35 U.S.C. § 285; and

5. A judgment for such other and further relief in law or equity as this Court deems just or proper.

JURY DEMAND

Amazon hereby demands a trial by jury on all counts so triable.

Dated: January 10, 2023

By: s/ Ryan J. McBrayer

Ryan J. McBrayer, WSBA No. 28338
PERKINS COIE LLP
1201 Third Avenue, Suite 4900
Seattle, Washington 98101-3099
Telephone: 206.359.8000
Facsimile: 206.359.9000
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Moez M. Kaba (*Pro hac vice pending*)
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Los Angeles, California 90014
Telephone: 213-788-4340
Facsimile: 888-775-0898
mkaba@hueston.com
crayburn@hueston.com
shaji@hueston.com

*Attorneys for Plaintiffs AMAZON.COM, INC.
and AMAZON.COM SERVICES LLC*